



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,859	08/28/2003	Dong-Woo Shin	P24067	6377
7055	7590	11/25/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			DUNN, DAVID R	
			ART UNIT	PAPER NUMBER
			3616	
DATE MAILED: 11/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/649,859	Applicant(s) SHIN, DONG-WOO	
	Examiner David Dunn	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

This Office Action is responsive to the amendment filed September 20, 2005.

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “each control arm comprising a pair of upper arms”, “a pair of lower arms”, “a buffer directly connected to one end portion of each of the lower arms”, and “a mounting bracket... being disposed at tip end portions of the upper... arms” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

Art Unit: 3616

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not describe the “buffer directly connected to ... the lower arms” as claimed in claim 1. As shown in Figure 2, the buffer is directly attached to a mounting bracket not the lower arms.

Claim 1 also recites “each control arm comprising a pair of upper arms” and “a pair of lower arms”, however the disclosure appears to describe only a right and left upper arm and right and left lower arm (see page 6, first full paragraph). It appears from the specification that each control arm comprises one upper and one lower arm. Note that specification describes the knuckles having a pair (right and left), i.e., there are only two knuckles.

Additionally, the specification does not disclose the mounting bracket “being disposed at tip end portions of the upper and lower arms.” The disclosure only describes the bracket being on the lower arms.

All three of these new limitations are new matter not described in the original disclosure.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “a plurality of control arms”, however “right and left control arms” were previously recited in lines 1-2. It is unclear if these are the same control arms or not.

Claim 1 also recites “each control arm comprising a pair of upper arms” and “a pair of lower arms”, however the disclosure appears to describe only a right and left upper arm and right and left lower arm (see page 6, first full paragraph). It appears from the specification that each control arm comprises one upper and one lower arm. It is unclear how many control arms are actually being claimed. Also note that the claim recites that the buffer is connected to “each of the lower arms.” There is only one buffer with two ends, so from this it appears that there is only one lower arm on each side, not a pair.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

7. Claims 1, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Karpik (6,357,543).

Karpik discloses an interconnected suspension for a vehicle having right and left control arms, comprising: a pair of knuckles (36a, 36b); a plurality of control arms, each control arm comprising a pair of upper arms (28a, 28b) and a pair of lower arms (32a, 32b; see Figure 1); a buffer (84a) directly connected to one end portion of the lower arms; and a mounting bracket (88a) disposed at tip end portions of the arms. The buffer is a shock absorber (84).

8. Claims 1, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Rix et al. (2,536,769).

Rix et al. disclose an interconnected suspension for a vehicle having right and left control arms, comprising: a pair of knuckles (18; see Figure 2); a plurality of control arms, each control arm comprising a pair of upper arms (14; see Figure 3) and a pair of lower arms (15); a buffer (28) directly connected to one end portion of the lower arms; and a mounting bracket (24) disposed at tip end portions of the arms.

9. Claims 1, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Grove et al. (5,534,575).

Grove et al. disclose an interconnected suspension for a vehicle having right and left control arms, comprising: a pair of knuckles (52); a plurality of control arms, each control arm comprising a pair of upper arms (20) and a pair of lower arms (21); a buffer (64) directly connected to one end portion of the lower arms; and a mounting bracket (38) disposed at tip end portions of the arms.

*Claim Rejections - 35 USC § 103*

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karpik in view of Lee (5,505,479); or Rix et al. in view of Lee; or Grove et al. in view of Lee.

Karpik, Rix et al. and Grove are each discussed above but fail to show the buffer being an elastic member.

Lee teaches an interconnected suspension having a buffer (16) between control arms, the buffer being an elastic member (see column 3, lines 31-34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Karpik, Rix et al. or Grove with the teachings of Lee in order to provide an elastic buffer in order to more inexpensively absorb vibrations between the control arms.

12. Claims 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpik in view of Banse (5,108,126); or Rix et al. in view of Banse; or Grove et al. in view of Banse.

Karpik, Rix et al. and Grove are each discussed above but fail to show a plurality of holes to adjust the buffer.

Banse teaches a wheel suspension assembly with a plurality of locking holes (25) used to adjust the height of the buffer as attached to the control arm.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Karpik, Rix et al. or Grove with the teachings of Banse to provide a

plurality of holes in the mounting bracket to adjust the height of the buffer to adjust for various suspension arrangements.

### *Response to Arguments*

13. Applicant's arguments filed 9/20/2005 have been fully considered but they are not persuasive. Regarding the rejection of Karpik as argued by applicant in the paragraph bridging pages 5 and 6, Applicant argues that "Karpik does not teach the combination of the knuckles, the control arms and the buffer as recited in claim 1." In response, it is submitted that Karpik does show this combination of elements; see the rejection above for further description.

### *Conclusion*

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

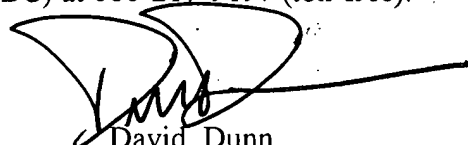


Art Unit: 3616

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 571-272-6670. The examiner can normally be reached on Mon-Fri, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Dunn  
Primary Examiner  
Art Unit 3616